

EUPRERA CONFERENCE PAPER 2013

Advancing the country image construct from a public relations perspective

From model to measurement

Alexander Buhmann and Diana Ingenhoff

*Department of Mass Media and Communication Research,
University of Fribourg, Fribourg, Switzerland*

Abstract

Purpose – The purpose of this paper is to develop and test a new model for the measurement of the constitution and effects of the country image as a central target construct in international public relations.

Design/methodology/approach – The authors combine concepts from reputation management (Eisenegger and Imhof, 2008; Ingenhoff and Sommer, 2007), national identity theory (Smith, 1987), and attitude theory (Ajzen and Fishbein, 1980) to derive a four-dimensional model, conceptualizing country images as stakeholder attitudes toward a nation and its state, comprising specific beliefs and general feelings in a functional, normative, aesthetic, and emotional dimension. Furthermore, the authors develop a path model to analyze the country image's effect on stakeholder behavior. This model is operationalized and tested in a survey regarding the country image of the USA and its effects on travel behavior.

Findings – Results show how functional, normative and aesthetic image dimensions vary in affecting the formation of the affective image component. It is also demonstrated how the affective image dimension acts as a mediator in the image's effect on stakeholder behavior.

Practical implications – For international public relations and public diplomacy practice the developed model supplies a new approach for country image analyses which will serve and improve the development and evaluation of cross-national communication strategies.

Originality/value – The paper introduces a new theory-grounded approach to clarify the dimensionality of the country image construct. It is the first to operationalize cognitive and affective dimensions of the country image by combining formative and reflective indicators in a mixed specified construct.

Keywords PLS, Strategic communication, 4D Model, Image measurement, Stakeholder behaviour, Country image construct

Paper type Research paper

Introduction

In times of globalization and mediatization, countries are increasingly observed by global media and publics: they are rated and compared according to their economic development, political stability, effectiveness and morality of their national and international policies or the attractiveness of their culture (Werron, 2012). Research shows that the country image, as “the cognitive representation that a person holds about a given country” (Kunczik, 2003, p. 412), has manifest effects on the success of a country's businesses, trade, tourism and diplomatic relations because it affects the behavior of central stakeholders abroad (Jaffe and Nebenzahl, 2001; Kotler and Gertner, 2002; Sun, 2008; Tapachi and Waryszak, 2000).

Under these conditions a country's “favorable image and reputation around the world [...] have become more important than territory, access, and raw materials” (Gilboa, 2008, p. 56). As a consequence, practices of communication management are

increasingly applied on the level of the nation-state system in international public relations and public diplomacy (Dinnie, 2008; Dyke and Vercic, 2009; Kunczik, 1997; Snow and Taylor, 2009). “Communication experts need to have knowledge of their target groups” (Vos, 2006, p. 256), which, in an international public relations context involves knowledge of how publics in a given country perceive a foreign entity (organization or country) and how they behave toward it (Sriramesh and Vercic, 2009). The development of measures for intangibles like country images is an important desideratum in both public relations research and practice: while in research these measures help to develop a systematic understanding of the constitution of country images and their effects on people’s behavior, in practice these measures serve as an evaluative and interpretative basis for the development and implementation of cross-national communication strategies.

But sound conceptual models and appropriate measurement instruments to analyze the constitution and effects of country images are rare. Many existing models lack theoretical foundation, cannot be applied to different countries or the comparative analysis of country images in different stakeholder groups, often fail to measure comprehensively all relevant dimensions and largely refrain from clarifying the internal structure of the construct (Magnusson and Westjohn, 2011; Papadopoulos, 2004; Roth and Diamantopoulos, 2009). The growing importance of country images and the respective challenges in current research and practice raise the central question: How can country images be conceptualized and measured, and what effect do they have on the facilitation of favorable stakeholder behavior?

In the following, this question is approached in three steps: First, approaches to studying country images from different fields of research are introduced, leading to a synthesis of central research gaps. Second, the public relations perspective is applied to develop a new four-dimensional model of the country image by combining concepts from reputation management, national identity theory and attitude theory. Third, we demonstrate how this model can be operationalized and used for empirical evaluation of the constitution and effects of country images by drawing on a student sample and using the image of the USA and its effect on travel behavior as an example.

Literature review

The state of research from different field perspectives

A recent interdisciplinary review of literature shows that country images – which are causes and effects of both social as well as psychological processes – have a multitude of possible economic, cultural and political effects, and that this has led to studies in a very wide range of scientific fields (Buhmann and Ingenhoff, 2015). Different facets of the phenomenon have been studied from the perspectives of business studies, social psychology, political science and communication science.

In business studies, different concepts have been developed in the subfields of nation branding and country of origin research. In country of origin research, most researchers have conceptualized the country image as an attitudinal construct, suggesting a plethora of variables for measurement (see Roth and Diamantopoulos, 2009 for an overview). Important factors include the evaluation of the national economy (e.g. Martin and Eroglu, 1993; Wang and Lamb, 1983), the political system (e.g. Allred *et al.*, 1999), the work-training and competences of the people (Heslop *et al.*, 2004) and the degree of technological advancement (e.g. Desborde, 1990; Kühn, 1993; Martin and Eroglu, 1993). In research on nation branding, the construct is mostly specified in terms

of general associations with a country, e.g. prominent landmarks, culinary specialties and popular figures from sports or politics (Brown *et al.*, 2010; Ptaschunder *et al.*, 2004; Reindl and Schweiger, 2006).

In social psychology, concepts of country image and country identity (or “country self-image”) have been developed in the subfields of intergroup relations and collective identity research. In research on intergroup relations, country images are analyzed with a focus on countries’ political actions, motivations, and abilities (Herrmann *et al.*, 1997; Oskamp, 1965). Integral to the country image are the relationship between countries (Cottam, 1977; Jervis, 1976), the strengths and weaknesses of a country and its status as an enemy (Boulding, 1956, 1959; Cottam, 1977; Holsti, 1967; Shimko, 1991; Silverstein and Holt, 1989; White, 1965). Cuddy *et al.* (2007) and Fiske *et al.* (1999, 2007) identify warmth and competence as two universal factors in intergroup perceptions. In collective identity research the identity of a country is seen as one distinct form of collective identity or collective self-image (David and Bar-Tal, 2009; Rusciano, 2003). So far, this research largely focusses on small groups, and lacks understanding of collective identity on the macro level of countries (Huddy, 2001). Furthermore, as David and Bar-Tal (2009) point out, existing studies focus on the process of individual identification and barely address the generic features and content of national identity.

In political science, country images are researched mostly in the subfield of international relations, often with regard to the concept of public diplomacy (Leonard *et al.*, 2002; Schatz and Levine, 2010; Vickers, 2004). A positive country reputation facilitates common understanding in the international system (Wang, 2006) and increases the political action ability of a nation-state (Vickers, 2004). The central aspect is often seen in the affective image component, i.e., a country’s “ability to attract” as it constitutes a nation’s “soft power” in the international system (Nye, 2004). In this field, concepts and methods are still in the developing stages (Gilboa, 2008), making the conceptual and empirical development of instruments which are applicable for measurement and evaluation in public diplomacy practice one of the most relevant gaps of the field (Banks, 2011; Fitzpatrick, 2007; Pahlavi, 2007).

In communication science, country images are studied in research on international communication as well as media content and effects (Golan and Wanta, 2003; Salwen and Matera, 1992; Wanta *et al.*, 2004). In the subfield of public relations research, the study of country images has so far received only limited attention (Dyke and Vercic, 2009; Kunczik, 2003). Some researchers have shown a positive effect of public relations activities on country images in US news coverage (Albritton and Manheim, 1983, 1985; Manheim and Albritton, 1984; Zhang and Cameron, 2003) and on public opinion (Kiousis and Wu, 2008). Others have addressed the potential and challenges of communication strategies for the cultivation of country images (Kunczik, 1997, 2003) and country reputation (Wang, 2006, 2008). Only a few have addressed questions regarding the conceptualization and measurement of the country image construct in detail. Passow *et al.* (2005) and Yang *et al.* (2008), for instance, applied a model of corporate reputation in analyses of country reputation. In contrast to most concepts in the business studies approaches, these works stress the importance of social factors like the social and ecological responsibility of a country.

A synthesis of central research gaps

Coming to a synthesis of the interdisciplinary literature review, it appears that there is hardly a common conceptual understanding of the country image construct in any of

the individual fields. Also, the theoretical foundation and empirical testing of the dimensionality of the construct are still unsatisfactory (Newburry, 2012; Roth and Diamantopoulos, 2009). When looking at the basic components of the country image, there appears to be a gap concerning the inclusion of affective variables. Most models developed so far focus on the cognitive component of the attitudinal construct and fail to coherently integrate emotional aspects. Furthermore, the internal structure of the country image remains largely unexplained, raising the question of how different cognitive and affective image dimensions affect each other. Also, as has been problematized regarding applications of measures for other intangibles like reputation (Gardberg, 2001; Helm, 2005; Ingenhoff and Sommer, 2010), works in the field of country images rarely address the epistemic structure of the construct, leading to possibly incorrect specifications when it comes to model operationalization. Furthermore, in conceptualizing and operationalizing the construct, most researchers (like Puaschunder *et al.*, 2004; Reindl and Schweiger, 1988, 1992, 2006; Schweiger and Kurz, 1997) develop models inductively from existing images among a certain group of people at a specific point in time. Such models fit only for the image of specific countries and cannot be applied to and utilized in comparative analyses of different countries. Such models are, of course, also limited in their applicability to different stakeholder groups since their dimensions depend strongly on the focus of specific groups such as consumers or tourists. Despite the evident calls to deliver more differentiated and comparative analyses of country images in different groups (like politicians, foreign political publics, skilled workers and experts, journalists, students), research in the different fields has so far largely neglected the development of generalizable models that can be applied to comparative analyses in different groups. Concepts of national identity – although they offer promising theoretical grounds for substantiating generic attributes and content of the construct – are widely disregarded in research on country images. Only recently, works in nation branding (Dinnie, 2008) and collective identity research (David and Bar-Tal, 2009) demonstrate how such concepts can be applied to the study of country images. Based on these gaps we can formulate four specific research questions:

- RQ1. How can we integrate available approaches to conceptualize the country image as a generalizable multidimensional construct comprising cognitive and affective components?
- RQ2. How can we specify and measure the country image and its individual dimensions?
- RQ3. How do different cognitive and affective country image dimensions interrelate and affect each other?
- RQ4. How do different cognitive and affective dimensions of the country image affect the facilitation of stakeholder behavior?

Conceptual model

Applying the public relations perspective to developing an integrative model of the country image

We apply a public relations perspective to show how available approaches can be integrated to derive a multidimensional model of the country image, which can be applied to different countries and utilized for comparative analyses of country images and their effects in different stakeholder groups.

From a “meso-level” perspective, public relations research analyzes the strategic communication between an organization and its stakeholders (Grunig and Hunt, 1984). From this analytical perspective, national agencies or the nation-state as a whole – seen as an “actor of world society” (Meyer and Jepperson, 2000) – appear as the organizational entities. In this context public relations means the management of communication between a nation-state and its (foreign) stakeholders. An analysis of country images from the public relations perspective thus unfolds three fundamental and interrelated levels of analysis: the identity of a country, the processes of international communication about countries, and the opinions and attitudes toward a country that form from these processes among relevant stakeholders.

To develop our integrative model of the country image we combine three basic concepts: the concept of national identity by Smith (1987) to substantiate generic attributes of the reference object of the “country”; the attitude theory by Ajzen and Fishbein (1980) as a foundation for the constitutive components of attitudes which build the cognitive foundation for the image concept; and the model of reputation as a multidimensional construct as suggested by Ingenhoff and Sommer (2007) and Eisenegger and Imhof (2008), which serves as a framework for differentiating between multiple dimensions of the country image.

The image object of the country is conceived of as the unity of a nation and its state. By drawing on Smith’s (1987) concepts, the country can be defined as a named human collective consisting of six generic attributes: a distinct territory or “homeland,” a common history and traditions, a domestic economy, a public culture, a set of common norms and values as well as a sovereign political organization or state.

Correspondingly, the country image is conceptualized as a stakeholder’s attitude toward a country. Following the concept of attitudes from the Theory of Reasoned Action (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975), country images then comprise a component of beliefs (cognitive component) and a component of emotions (affective component) toward the image object. While the cognitive component can be seen as consisting of multiple specific evaluations regarding a broad range of attributes of the image object, the affective component consists of a necessarily general judgment regarding its sympathy (Bergler, 2008). Conceptualized as an attitudinal construct, the country image can be seen as an important antecedent of intended behavior (Roth and Diamantopoulos, 2009).

To further differentiate between these general components we draw on a recent concept developed in the field of reputation management (Eisenegger and Imhof, 2008; Ingenhoff and Sommer, 2007). According to this concept, each image object will be judged according to one’s beliefs about its functional qualities (abilities, competences, and success), its normative qualities (integrity) as well as its emotional qualities (sympathy and fascination). Ingenhoff and Sommer (2010) furthermore showed how this concept can be applied in a causal model in which the functional and the normative dimensions act as antecedents of sympathy. This is in line with the concept of the Standard Learning Hierarchy from the Theory of Reasoned Action, which assumes a somewhat rational process in which what we know about an object affects how we feel toward this object (Ajzen and Fishbein, 1980). Although this hierarchy of effects can vary according to context (Ajzen, 2001), the standard learning hierarchy can be seen as the normal case of the constitution of attitudes (Pelsmacker *et al.*, 2013) and can serve as the basic assumption for the analysis of country images (Bloemer *et al.*, 2009).

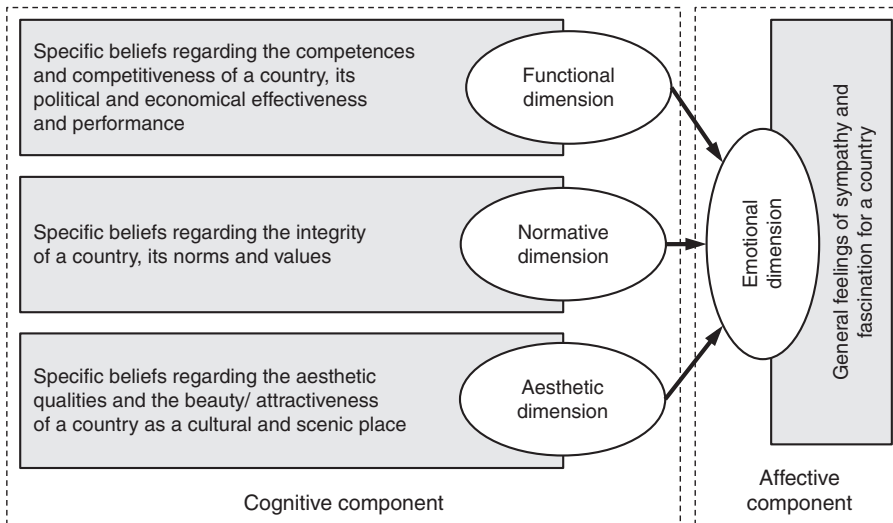
These dimensions can be specified regarding the image object of the country by drawing on the attributes from Smith’s concept. Whereas functional judgments can be

associated with general economical and political characteristics of a given country, normative judgments can be associated with Smith's country attribute of country norms and values. Looking at the attributes of the public culture, traditions and landscapes of a country, the association with one of the generic image dimensions appears to be less plausible. To make the multidimensional model of reputation – which has been developed in the context of companies – entirely suited for analyzing country images, we need to further differentiate it by adding a dimension that captures beliefs regarding the aesthetic qualities of a country, that is its beauty and attractiveness as a cultural and scenic place. In the model by Eisenegger and Imhof (2008) aesthetic aspects appear to be associated entirely with the sympathy dimension. But when following Ingenhoff and Sommer (2010) in including a general sympathy dimension as a dependent outcome of beliefs about a country, aesthetic evaluations should be conceptualized – like functional and normative ones – as a separate dimension influencing feelings of sympathy toward a country. Otherwise aesthetic evaluations (e.g. about the natural beauty of a country's landscapes) would be miss-conceptualized as outcomes of functional and normative judgments. Thus we specify the country image as a construct consisting of four different, but closely interrelated, dimensions: a functional, a normative, an aesthetic and an emotional dimension (see Figure 1).

In summary, according to our model, an integration of the three concepts of national identity, image as attitude and three-dimensional reputation allows us to define the country image as “a stakeholder's attitude towards a nation and its state, comprising of specific beliefs and general feelings in a functional, a normative, an aesthetic and an emotional dimension.”

Defining the epistemic structure of the country image

When the ultimate aim lies in producing concrete measures for an intangible like country image in order to assess its affects on stakeholder behavior, it is necessary



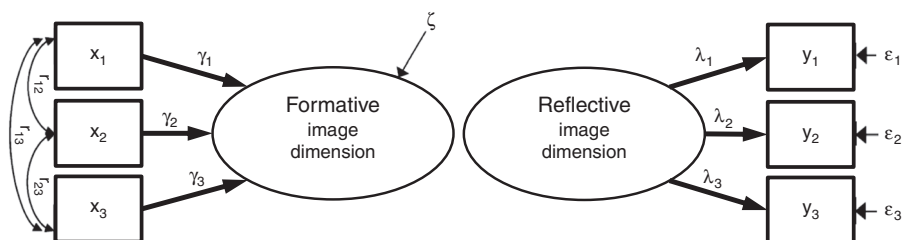
Source: Buhmann and Ingenhoff (2015)

Figure 1.
The 4D Model of
the country image

to clarify the epistemic structure of the construct. While most existing approaches to measuring country images specify which dimensions should constitute the overall image construct, researchers in the field largely do not discuss how these dimensions should be specified as measurement models. But as complex latent constructs, the different country image dimensions have to be operationalized using manifest variables and this produces questions regarding the type of specification. Depending on the specific relation of manifest variables with the underlying construct, measurement models can generally be specified in a formative or reflective manner (Bollen, 1989; Jarvis *et al.*, 2003). These different types of specification, of course, make a fundamental difference to the epistemic structure of the overall country image construct: while reflective specification presupposes indicators to be the observable outcomes of variance in the underlying image dimension, formative specification means that indicators cause the respective latent construct. This, by implication, changes fundamentally the nature of the interrelations between all variables in the measurement model (see Figure 2). As “reflections,” different indicators are prototypical manifestations of a latent construct, highly similar and interchangeable. As formative elements, however, they make the latent construct appear, each acting as one dimension or building block on their “own right” (Jarvis *et al.*, 2003). So far, this important distinction is rarely addressed explicitly when it comes to defining intangibles like image or reputation, and models which are applied as measurement instruments are generally specified reflectively without further reasoning (Helm, 2005; Ingenhoff and Sommer, 2010).

Despite the strong use of reflective indicators in existing country image measures, it is conceptually questionable whether this kind of specification is the right way to go. When the general country image and its latent dimensions are conceived of as the overall evaluation of a country, then the specific variables of the image and its dimensions are to be seen as individual “building blocks” of the image. In the concrete case of the 4D Model the different characteristics in the functional, normative and aesthetic dimensions of the broad construct of the country image cannot be presupposed as being equally valid and reliable for measuring a respective image dimension. In connection to recent arguments regarding related intangible constructs (Gardberg, 2001; Helm, 2005; Buhmann and Ingenhoff, 2014), we see the various specific beliefs regarding the cognitive image dimensions of the country image as variables that make the underlying constructs appear, not as outcomes of the image dimensions. This means that they can vary independently of each other. Such an epistemic structure then has practical consequences for efforts to operationalize and measure the construct: observations about a person’s beliefs about, e.g., a country’s economic strength or natural beauty need to be formatively specified as determinants of the respective image dimension.

Figure 2.
Formative vs
reflective
specification of
country image
dimensions



Modeling the constitution of the country image and its effect on stakeholder behavior

According to the Theory of Reasoned Action, intended behavior (conations) can be seen as dependent outcomes of cognitions and affects. According to this theory, attitudes are – next to subjective norms – the single most important predictors of the behavior components (Fishbein and Ajzen, 1975). In connection to previous results (Ingenhoff and Sommer, 2010) we hypothesize that each of the cognitive dimensions is positively correlated with the sympathy dimension which has a mediating effect on conations. While aesthetic beliefs are fully mediated by feelings of sympathy, functional and normative judgments are hypothesized also to affect directly intended behavior (see Figure 3).

Operationalization of the construct

Due to the novelty of the conceptual model and a lack of consensus on valid scales, a novel measure was developed for the country image based on the 4D Model.

According to the above argumentation regarding the epistemic structure of the country image, the exogenous constructs of the functional, normative, and aesthetic dimension (cognitive country image component) were operationalized with formative indicators while the endogenous construct of the emotional dimension (affective country image component) was matched with reflective indicators. In connection to the methodology suggested by Diamantopoulos and Winklhofer (2001), the indicators for the formatively specified dimensions of the cognitive image component were developed not only from existing literature, but also in close connection to the actual content specification of the different latent dimensions from the 4D Model. In addition to the literature review, a survey among students ($n = 650$) was conducted in February 2013, in which participants were asked how strongly their image of another country depended on a selected number of items and which further aspects were important to

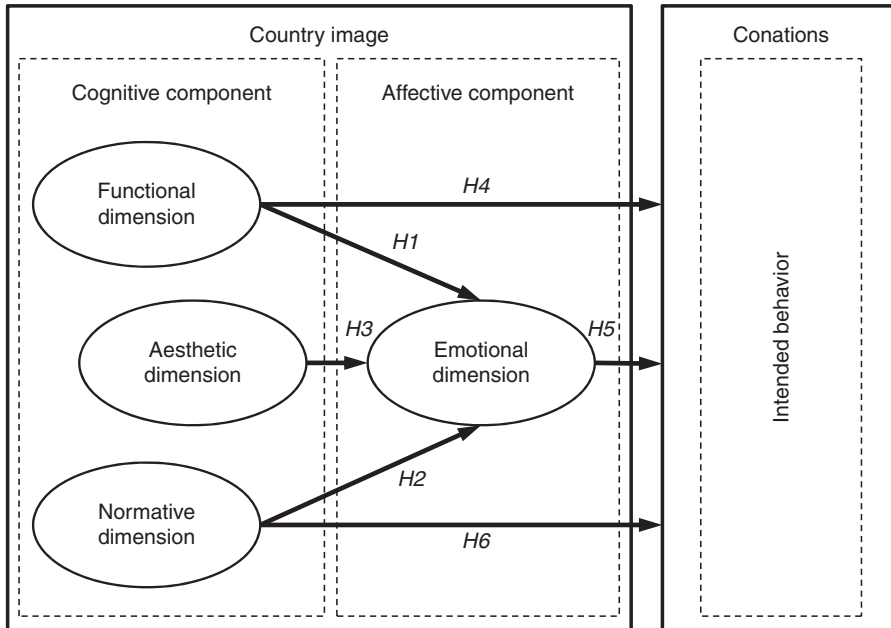


Figure 3.
A path model
of the constitution
and effects of
country images

them. Results supported the relevance of the selected items and the additionally suggested aspects were all consistent with items that have been extracted from literature or derived from the model. Together, the literature review and survey amounted to a total of 62 items, which were pre-tested in expert interviews with 14 practitioners and scholars from four different countries, checking for content validity, item clarity and redundancy. The refined set of items was subjected to an item-sorting task for assessment of substantive validity (Anderson and Gerbing, 1991). These pre-tests allowed for a refining of the items to a total of 31, which were checked for indicator collinearity and external validity. An analysis of a covariance matrix gave indication of possible cross-loadings. All correlations above 0.70 between indicators across constructs were subjected to further conceptual considerations on the basis of the content specification of the latent variables. These analyses led to a final refinement of the pool to a total of 21 items: 12 for the functional, five for the normative and four for the aesthetic dimension.

In the reflectively specified dimension of the affective country image component, individual items are believed to be influenced by the same underlying construct. Accordingly, this dimension was operationalized in accordance with a previous study on corporate reputation (Ingenhoff and Sommer, 2010), using four indicators for measurement. The items of the reflective latent variable of the emotional dimension were subjected to an exploratory factor analysis with varimax rotation, giving a KMO-value of 0.94 and a one-factor solution. One indicator was dropped due to low loading (below 0.70), leaving three indicators reflecting the overall construct.

For the goal variable of the conative component we chose a single item indicator for a person's intention to travel to a country. All items in the model were scored with bipolar, entirely verbalized five point Likert scales.

Method

The results described below constitute the first test of the new model on the country image of the USA using a student sample from a Swiss university ($n = 208$). The sample was collected in May 2013 and consists of undergraduate students, 63 percent females and 37 percent males, with an average age of 21. The hypothesized relations between the different constructs in the path model are analyzed by means of structural equation modeling. Specifically, the covariance-based approach of partial least squares (PLS) was used to analyze the results because the model contains both formative and reflective constructs (Fornell and Bookstein, 1982). For a detailed account on how to analyze path models using PLS, see e.g. Chin (2010).

Results

Measurement model

First, results from the measurement models are analyzed (outer model). Due to the differences in specification (formative vs reflective) the instruments of the cognitive and affective image components have to be evaluated using different criteria.

The items of the reflective latent variable of the sympathetic country image dimension are evaluated by looking at values for significance and loadings as well as at coefficients for internal consistency reliability and discriminant validity (see Table I for results). All indicators are significant and range clearly above 0.70 showing that each of them is able to explain over 50 percent of the variance of the latent construct. The reliability of indicators is substantiated when looking at the indicator showing the lowest loading: here the value of 0.73 suggests a variance explained of still over

53 percent. Internal consistency reliability is generally assessed by looking at Cronbach's α . However, some researchers suggest drawing on tests that do not assume τ -equivalence (Sijtsma, 2009); alternatively, composite reliability can be assessed by Dillon-Goldstein's ρ . Both values suggest good reliability in this case since they are well above the suggested threshold value of 0.70. As further criteria, convergent and discriminant validity of the reflective construct are to be assessed. For convergent validity the average variance extracted (AVE) should be above 0.50. For discriminant validity, cross-loadings should be checked at indicator level to see whether the individual loadings of all indicators are higher with the assigned than with all other variables in the model. And last, discriminant validity can be assessed by using the Fornell-Larcker criterion, which shows whether a latent variable shares more variance with its own indicators than with any other latent variable in the model. In this case, all tests suggest good validity of the reflective measurement model.

For the formative constructs of the functional, normative and aesthetic dimension, different criteria have to be used to evaluate the results (Chin, 2010). The whole finalized set of indicators was applied, since it is, in its entirety, conceptually connected to the content of the respective constructs, and thus item selection for purposes of increasing reliability is inappropriate (Bollen and Lennox, 1991). For formative measures results can be assessed based on indicator weights, indicator relevance and external validity (Diamantopoulos and Winklhofer, 2001).

First, indicator weights are looked at (see Table II). The weights are considered significant if t -values are above 1.96 (with an error probability at 5 percent). Given the number of significant indicators, the theoretically postulated relationship between the indicators and the latent variables is only partially supported by the data. The weights themselves indicate that, on the level of the functional dimension, three important factors constitute the overall evaluation of the country's competences and competitiveness in the analyzed group: competences of the political leadership explain most of the variance of the latent dimension, followed by the factors of political stability and beliefs regarding the economic strength of the country. This shows that the group of analyzed students had a primarily "political angle" in forming their functional judgment of the country. Regarding the normative dimension of the country, respect for other nations was identified as the one central factor in constituting this level of judgment. The dimension comprising the aesthetic judgment of the country is formed by three factors, of all quite equal weights and of which beliefs regarding the country's history and traditions appears to be the most important.

Following the assessment of the indicator weights, indicator relevance has to be evaluated. This is done by looking for multi-collinearity among the cognitive country image dimensions, which is central due to the fact that the formative measurement models are based on multiple regression (Diamantopoulos and Winklhofer, 2001). For this evaluation the variance inflation factor (VIF) is

Emotional dimension	Loadings	t -values
Country fascination	0.78	54.65
Sympathy for the country	0.89	68.13
Country attractiveness	0.73	31.94
Cronbach's α	0.77	
Dillon-Goldstein's ρ	0.87	
AVE	0.69	

Table I.
Indicator loadings,
Cronbach's α ,
Dillon-Goldstein's ρ
and AVE

Table II.
Indicator loadings
of the formative
measures

	Weights	t-values
<i>Functional dimension</i>		
Country innovativeness	0.13	1.1
National products and services	0.12	0.1
Competence of national businesses	0.10	0.8
National prosperity and wealth	0.17	1.3
Economic strength of country	0.31	2.8*
Labor markets	0.11	0.8
Competences of political leadership	0.43	3.1*
Political stability	0.33	2.2*
Infrastructure	0.3	0.2
Innovativeness in research	0.1	0.6
Educational opportunities	0.2	1.3
Level of education	0.02	0.1
<i>Normative dimension</i>		
Environmental protection	0.28	1.6
International social responsibility	0.05	0.3
Respect for other nations	0.45	2.9*
Civil rights	0.21	1.3
Fairness of international economic and trade policy	0.24	1.3
<i>Aesthetic dimension</i>		
Cultural goods	0.25	2.1*
Culinary	0.28	2.5*
History and tradition	0.29	2.8*
Landscapes and scenery	0.18	1.5
Note: * $p \leq 0.05$		

calculated (see Table III). The resulting values for each of the three cognitive country image dimensions suggest that multi-collinearity is not a problem in the data set since all meet the threshold criteria of being close to one and well under 10 (Kleinbaum *et al.*, 2008). It can be concluded that the individual indicators in the model do not correlate to a degree that would cause concern.

As a last step in the evaluation of the measurement model, integrating a summary item in the survey for each of the formative constructs is recommended (Diamantopoulos and Winklhofer, 2001). This allows for the assessment of external validity by controlling whether the formative indicators of the construct are significantly and positively correlated with this one manifest variable (see Table IV). In the two constructs of the normative and aesthetic dimensions all items are significantly and positively correlated with the respective summary item for the dimensions substantiating external validity of both of these formative constructs. Looking at the functional dimension we see that the majority of the items can support external validity of the construct.

Structural relationships

Subsequent to the evaluation of the reflective and formative measurement models – as shown in the above section – the path model needs to be subjected to analysis

Table III.
Variance inflation
factor (VIF) of
individual image
dimensions

	Functional dimension	Normative dimension	Aesthetic dimension
VIF	1.5	1.3	1.4

	Coefficients
<i>Functional dimension</i>	
Country innovativeness	0.12*
National products and services	0.20*
Competence of national businesses	0.13*
National prosperity and wealth	0.13*
Economic strength of country	-0.1
Labor markets	0.04
Competences of political leadership	0.35*
Political stability	0.24*
Infrastructure	0.18*
Innovativeness in research	0.09
Educational opportunities	0.19
Level of education	0.20
<i>Normative dimension</i>	
Environmental protection	0.29*
International social responsibility	0.31*
Respect for other nations	0.40*
Civil rights	0.15*
Fairness of international economic and trade policy	0.20*
<i>Aesthetic dimension</i>	
Cultural goods	0.30*
Culinary	0.42*
History and tradition	0.35*
Landscapes and scenery	0.28*
Note: * $p \leq 0.05$	

Table IV.
Correlations between
indicators and
summary items

(inner model). All results are summarized in Figure 4. These results show that the model is able to explain very well the endogenous variables: while the emotional dimension is explained with well over 50 percent, the conative goal variable attains almost 40 percent explained variance. Furthermore, all but one of the path coefficients are significant at $p = 0.50$. The strongest effect is present in the path linking the mediating variable of the emotional dimension and the conative variable of travel behavior ($H5$). There is also a strong effect from the aesthetic dimension onto

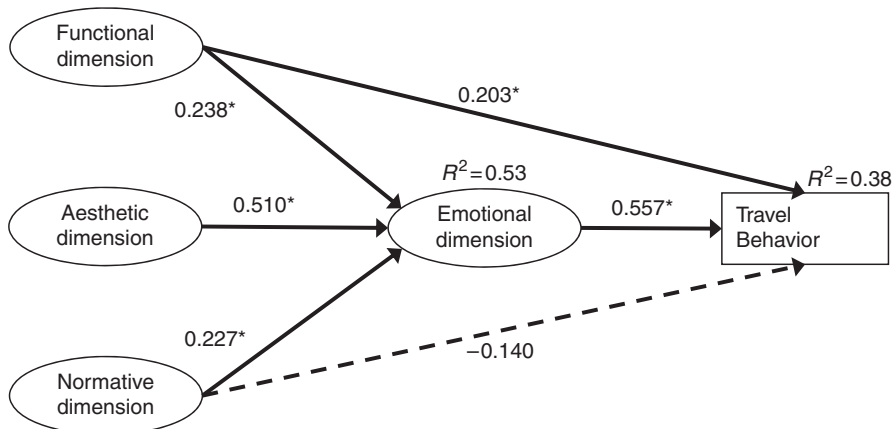


Figure 4.
Path model
results – country
image and travel
behavior

the emotional dimension, which is consistent with *H3*. The effect of the functional dimension on the emotional dimension is only slightly stronger than the direct effect of the normative dimension onto the emotional dimension. Even though both of these effects aren't particularly strong, they should not be neglected since they show that, apart from aesthetic judgments, the sympathy for a country is caused by functional and normative judgments. Only the hypothesized direct effect between the normative image dimension and the conative goal variable could not be supported by the model. This is in line with results from a similar model applied to measure corporate reputation (Ingenhoff and Sommer, 2010). The normative dimension's effect, however, just like the aesthetic dimension, is fully mediated by the sympathy dimension, while the functional dimension also shows a direct effect onto the conative variable of travel behavior.

Conclusion

The country image is a central target construct in international public relations and public diplomacy. In this paper we applied an integrative perspective in order to combine a recent model from reputation management with attitude theory as well as with conceptual insights on national identity to derive the new 4D Model of the country image. In this model the country image is defined as a stakeholder's attitude toward a nation and its state, comprising specific beliefs and general feelings in a functional, a normative, an aesthetic and a emotional dimension. While functional, normative and aesthetic judgments constitute the cognitive component, the emotional dimension constitutes the affective component of the country image. Based on the Standard Learning Hierarchy, this latter dimension is also seen as the dependent outcome of country cognitions: specific beliefs about a country's competences, values and norms as well as attractiveness as a cultural and scenic place affect the formation of general feelings of fascination and sympathy for that country. To clarify the ways in which this model can be operationalized for measurement, we specifically addressed the issue of the epistemic structure, leading to the conclusion that – despite common use of reflective constructs – the cognitive image dimensions should be specified in a formative manner.

To analyze the constitution and effects of the country image, the four-dimensional country construct was integrated in a path model based on the Theory of Reasoned Action. For a first empirical test of the new model, it was applied in a study on the constitution of the country image of the USA and its effect on travel behavior. It was possible to show that the country image can in fact be measured as a four-factorial construct. Results demonstrate that the functional, the normative and the aesthetic image dimensions relevantly affect the affective image component of the emotional dimension. Furthermore, the results support the mediating role of the emotional dimension in the country image's effect on intended behavior.

The paper contributes to public relations research by presenting a new conceptual model of the constitution and effects of country images, showing how this model can be applied by using PLS structural equation modeling, and giving first empirical evidence of the effects of different country image dimensions. Additionally, this study is the first to operationalize cognitive and affective dimensions of the country image by combining formative and reflective indicators in a mixed specified construct.

In future research, the developed model should be applied in other contexts, using different countries as image objects and different stakeholder groups as analyzed

target audiences; of course, representative samples would be very desirable to further advance reliable and valid measures based on the proposed model. Due to its theoretical grounding based on concepts from reputation management, attitude theory and national identity theory, the model is well designed for comparative analyses of the images of different countries and it can be applied in the context of different stakeholder groups like foreign investors, politicians, political publics, tourists, journalists, or skilled workers. Regardless of the generality of the conceptualized 4D Model and its basic country image dimensions, the individual formative variables that make up the cognitive component of the construct will, of course, vary according to context and should be operationalized specifically regarding a given group of stakeholders. An additional future research opportunity would be to apply the model in comparative analyses of the self-image of domestic publics of a country (i.e. country identity) and the outside perceptions of foreign publics (i.e. country image). Furthermore, in the line of research conducted by Oh and Ramaprasad (2003) the 4D Model can be applied in analyzing image transfer and halo effects between multinational corporations and their country of origin, specifically clarifying the strengths of image transfer effects on the level of the different image dimensions of the 4D Model. Building on research on the influence of normative concepts like “consumer nationalism” (Wang, 2005), the 4D Model can be further applied to analyze the influence of these normative concepts on the image of countries as well as on the image transfer between country and corporate image.

References

- Ajzen, I. (2001), “Nature and operation of attitudes”, *Annual Review of Psychology*, Vol. 52 No. 1, pp. 27-58.
- Ajzen, I. and Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behavior*, Prentice-Hall, Englewood Cliffs, NJ.
- Albritton, R.B. and Manheim, J.B. (1983), “News of Rhodesia: the impact of a public relations campaign”, *Journalism Quarterly*, Vol. 60 No. 4, pp. 622-628.
- Albritton, R.B. and Manheim, J.B. (1985), “Public relations efforts for the third world: images in the news”, *Journal of Communication*, Vol. 35 No. 1, pp. 43-59.
- Allred, A., Chakraborty, G. and Miller, S.J. (1999), “Measuring images of developing countries: a scale development study”, *Journal of Euromarketing*, Vol. 8 No 3, pp. 29-49.
- Anderson, J.C. and Gerbing, D.W. (1991), “Predicting the performance of measures in a confirmatory factor analysis with a pretest assessment of their substantive validities”, *Journal of Applied Psychology*, Vol. 76 No. 5, pp. 732-740.
- Banks, R. (2011), *A Resource Guide to Public Diplomacy Evaluation*, Figueroa Press, Los Angeles, CA.
- Bergler, R. (2008), “Identität und image”, in Bentele, G., Fröhlich, R. and Szyszka, P. (Eds), *Handbuch Der Public Relations. Wissenschaftliche Grundlagen und Berufliches Handeln*, VS Verlag fuer Sozialwissenschaften, Wiesbaden, pp. 321-334.
- Bloemer, J., Brijs, K. and Kasper, H. (2009), “The CoO-ELM model: a theoretical framework for the cognitive processes underlying country of origin-effects”, *European Journal of Marketing*, Vol. 43 No. 1, pp. 62-89.
- Bollen, K. and Lennox, R. (1991), “Conventional wisdom on measurement: a structural equation perspective”, *Psychological Bulletin*, Vol. 110 No. 2, pp. 305-314.
- Bollen, K.A. (1989), *Structural Equations with Latent Variables*, Wiley & Sons, New York, NY.
- Boulding, K.E. (1956), *The Image*, University of Michigan Press, Ann Arbor, MI.

- Boulding, K.E. (1959), "National images and international systems", *The Journal of Conflict Resolution*, Vol. 3 No. 2, pp. 120-131.
- Brown, G., Chalip, L., Jago, L. and Mules, T. (2010), "Developing brand Australia: examining the role of events", in Morgan, N., Pritchard, A. and Pride, R. (Eds), *Destination Branding: Creating the Unique Destination Brand*, Butterworth-Heinemann, New York, NY, pp. 279-305.
- Buhmann, A. and Ingenhoff, D. (2014), "Applying variance-based structural equation modeling to analyze causal effects between target constructs in public relations", paper presented at the EUPRERA Annual Congress, Brussels, September 11-13.
- Buhmann, A. and Ingenhoff, D. (2015), "The 4D Model of the country image: an integrative approach from the perspective of communication management", *International Communication Gazette*, doi:10.1177/1748048514556986, available at: <http://gaz.sagepub.com/content/77/1/102>
- Chin, W.W. (2010), "How to writ up and report PLS analyses", in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (Eds), *Handbook of Partial Least Squares. Concepts, Methods, Applications*, Springer, Heidelberg, pp. 655-690.
- Cottam, R.W. (1977), *Foreign Policy Motivation: A General Theory and a Case Study*, University of Pittsburgh Press, Pittsburgh, PA.
- Cuddy, A.J.C., Fiske, S.T. and Glick, P. (2007), "The BIAS map: Behaviors from intergroup affect and stereotypes", *Journal of Personality and Social Psychology*, Vol. 92 No. 4, pp. 631-648.
- David, O. and Bar-Tal, D. (2009), "A sociopsychological conception of collective identity: the case of national identity as an example", *Personality and Social Psychology Review*, Vol. 13 No. 4, pp. 354-379.
- Desborde, R.D. (1990), "Development and testing of a psychometric scale to measure country-of-origin image", unpublished PhD dissertation, Florida State University, Tallahassee, FL.
- Diamantopoulos, A. and Winklhofer, H.M. (2001), "Index construction with formative indicators: an alternative to scale development", *Journal of Marketing Research*, Vol. 38 No. 2, pp. 269-277.
- Dinnie, K. (2008), *Nation Branding: Concepts, Issues, Practice*, Butterworth-Heinemann, London.
- Dyke, v.M.A. and Vercic, D. (2009), "Public relations, public diplomacy, and strategic communication: an international model of conceptual convergence", in Sriramesh, K. and Vercic, D. (Eds), *The Global Public Relations Handbook: Theory, Research, and Practice*, Routledge, New York, NY, pp. 822-842.
- Eisenegger, M. and Imhof, K. (2008), "The true, the good and the beautiful: reputation management in the media society", in Zerfass, A., Ruler, B.v. and Sriramesh, K. (Eds), *Public Relations Research: European and International Perspectives and Innovations*, VS Verlag fuer Sozialwissenschaften, Wiesbaden, pp. 125-146.
- Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA.
- Fiske, S.T., Cuddy, A.J.C. and Glick, P. (2007), "Universal dimensions of social cognition: warmth and competence", *Trends in Cognitive Sciences*, Vol. 11 No. 2, pp. 77-83.
- Fiske, S.T., Xu, J., Cuddy, A.C. and Glick, P. (1999), "(Dis)respecting versus (dis)liking: status and interdependence predict ambivalent stereotypes of competence and warmth", *Journal of Social Issues*, Vol. 55 No. 3, pp. 473-489.
- Fitzpatrick, K. (2007), "Advancing the new public diplomacy: a public relations perspective", *The Hague Journal of Diplomacy*, Vol. 2 No. 3, pp. 187-211.

- Fornell, C. and Bookstein, F.L. (1982), "Two structural equation models: LISREL and PLS applied to consumer exit-voice theory", *Journal of Marketing Research*, Vol. 19 No. 4, pp. 440-452.
- Gardberg, N. (2001), "How do individuals construct corporate reputations?", unpublished PhD dissertation, New York University, New York, NY.
- Gilboa, E. (2008), "Searching for a theory of public diplomacy", *The ANNALS of the American Academy of Political and Social Science*, Vol. 616 No. 1, pp. 55-77.
- Golan, G. and Wanta, W. (2003), "International elections on US network news an examination of factors affecting newsworthiness", *International Communication Gazette*, Vol. 65 No. 1, pp. 25-39.
- Grunig, J.E. and Hunt, T. (1984), *Managing Public Relations*, Holt, New York, NY.
- Helm, S. (2005), "Designing a formative measure for corporate reputation", *Corporate Reputation Review*, Vol. 8 No. 2, pp. 95-109.
- Herrmann, R.K., Voss, J.F., Schooler, T.Y.E. and Ciarrochi, J. (1997), "Images in international relations: an experimental test of cognitive schemata", *International Studies Quarterly*, Vol. 41 No. 3, pp. 403-433.
- Heslop, L.A., Papadopoulos, N., Dowdles, M., Wall, M. and Compeau, D. (2004), "Who controls the purse strings: a study of consumers' and retail buyers' reactions in an America's FTA environment", *Journal of Business Research*, Vol. 57 No. 10, pp. 1177-1188.
- Holsti, O.R. (1967), "Cognitive dynamics and images of the enemy", in Finley, D., Holsti, O. and Fagen, R. (Eds), *Enemies in Politics*, Rand-McNally, Chicago, IL, pp. 25-96.
- Huddy, L. (2001), "From social to political identity: a critical examination of social identity theory", *Political Psychology*, Vol. 22 No. 1, pp. 127-156.
- Ingenhoff, D. and Sommer, K. (2007), "Does ethical behavior matter? How corporate social responsibility contributes to organizational trustworthiness", paper presented at the 57th Annual Conference of the International Communication Association (ICA), San Francisco, CA, May 24-28.
- Ingenhoff, D. and Sommer, K. (2010), "Spezifikation von formativen und reflektiven Konstrukten und Pfadmodellierung mittels partial least squares zur messung von reputation", in Woelke, J., Maurer, M. and Jandura, O. (Eds), *Forschungsmethoden fuer die Markt- Und Organisationskommunikation*, Herbert von Halem, Koeln, pp. 246-288.
- Jaffe, E.D. and Nebenzahl, I.D. (2001), *National Image and Competitive Advantage: The Theory and Practice of Place Branding*, Copenhagen Business School Press, Copenhagen.
- Jarvis, C.B., MacKenzie, S.B. and Podsakoff, P.M. (2003), "A critical review of construct indicators and measurement model misspecification in marketing and consumer research", *Journal of Consumer Research*, Vol. 30 No. 2, pp. 199-218.
- Jervis, R. (1976), *Perception and Misperception in International Politics*, Princeton University Press, Princeton, NJ.
- Kiousis, S. and Wu, X. (2008), "International agenda-building and agenda-setting exploring the influence of public relations counsel on US news media and public perceptions of foreign nations", *International Communication Gazette*, Vol. 70 No. 1, pp. 58-75.
- Kleinbaum, D.G., Kupper, L.L., Nazam, A. and Muller, K.E. (2008), *Applied Regression Analysis and Other Multivariable Methods*, Cole, Belmont, CA.
- Kotler, P. and Gertner, D. (2002), "Country as brand, product, and beyond: a place marketing and brand management perspective", *Journal of Brand Management*, Vol. 9 Nos 4/5, pp. 249-261.
- Kühn, R. (1993), "Das made-in image deutschlands im internationalen Vergleich", *Marketing ZFP*, Vol. 15 No. 2, pp. 119-128.

- Kunczik, M. (1997), *Images of Nations and International Public Relations*, Erlbaum, Mahwah, NJ.
- Kunczik, M. (2003), "Transnational public relations by foreign governments", in Sriramesh, K. and Vercic, D. (Eds), *Global Public Relations Handbook: Theory, Research and Practice*, Routledge, New York, NY, pp. 399-424.
- Leonard, M., Stead, C. and Smewing, C. (2002), *Public Diplomacy*, Central Books, London.
- Magnusson, P. and Westjohn, S.A. (2011), "Is there a country-of-origin theory?", in Jain, S.C. and Griffith, D.A. (Eds), *Handbook of Research in International Marketing*, Edward Elgar, Cheltenham, pp. 293-316.
- Manheim, J.B. and Albritton, R.B. (1984), "Changing national images: international public relations and media agenda setting", *The American Political Science Review*, Vol. 78 No. 3, pp. 641-657.
- Martin, I.M. and Eroglu, S. (1993), "Measuring a multi-dimensional construct: country image", *Journal of Business Research*, Vol. 28 No. 3, pp. 191-210.
- Meyer, J.W. and Jepperson, R.L. (2000), "The 'actors' of modern society: the cultural construction of social agency", *Sociological Theory*, Vol. 18 No. 1, pp. 100-120.
- Newbury, W. (2012), "Waving the flag: the influence of country of origin on corporate reputation", in Barnett, M.L. and Pollock, T.G. (Eds), *The Oxford Handbook of Corporate Reputation*, Oxford University Press, Oxford, pp. 240-259.
- Nye, J.S. (2004), *Soft Power: The Means to Success in World Politics*, Public Affairs, Cambridge, MA.
- Oh, M.-Y. and Ramaprasad, J. (2003), "Halo effect: conceptual definition and empirical exploration with regard to South Korean subsidiaries of US and Japanese multinational corporations", *Journal of Communication Management*, Vol. 7 No. 4, pp. 317-332.
- Oskamp, S. (1965), "Attitudes toward US and Russian actions: a double standard", *Psychological Reports*, Vol. 16 No. 1, pp. 43-46.
- Pahlavi, P. (2007), "Evaluating public diplomacy programmes", *The Hague Journal of Diplomacy*, Vol. 2 No. 3, pp. 255-281.
- Papadopoulos, N. (2004), "Place branding: evolution, meaning and implications", *Place Branding*, Vol. 1 No. 1, pp. 36-49.
- Passow, T., Fehlmann, R. and Grahlow, H. (2005), "Country reputation. From measurement to management: the case of Liechtenstein", *Corporate Reputation Review*, Vol. 7 No. 4, pp. 309-326.
- Pelsmacker, P.D., Geuens, M. and Bergh, J.v.d. (2013), *Marketing Communications: A European Perspective*, 5th rev. ed., Pearson Education, London.
- Puaschunder, J., Schweiger, G. and Kirchler, E. (2004), "Laendervergleich Oesterreich, Deutschland, Schweiz in Australien", *Werbeforschung und Praxis*, Vol. 19 No. 1, pp. 8-13.
- Reindl, A. and Schweiger, G. (2006), "Stabilitaet und Kontinuitaet von Laenderimages dargestellt anhand einer Studie aus Indonesien", *Werbeforschung und Praxis*, Vol. 21 No. 2, pp. 28-32.
- Roth, K.P. and Diamantopoulos, A. (2009), "Advancing the country image construct", *Journal of Business Research*, Vol. 62 No. 7, pp. 726-740.
- Rusciano, F.L. (2003), "The construction of national identity – a 23-nation study", *Political Research Quarterly*, Vol. 56 No. 3, pp. 361-366.
- Salwen, M.B. and Matera, F.R. (1992), "Public salience of foreign nations", *Journalism & Mass Communication Quarterly*, Vol. 69 No. 3, pp. 623-632.
- Schatz, E. and Levine, R. (2010), "Framing, public diplomacy, and anti-Americanism in Central Asia", *International Studies Quarterly*, Vol. 54 No. 3, pp. 855-869.
- Schweiger, G. (1988), *Oesterreichs Image im Ausland*, Norka Verlag, Wien.
- Schweiger, G. (1992), *Oesterreichs Image in der Welt. Ein Weltweiter Vergleich Mit Deutschland und der Schweiz*, Service-Fachverlag, Wien.

- Schweiger, G. and Kurz, H. (1997), "Herkunftstypische positionierung und werbung: die nutzung des image oesterreichs und oesterreichischer regionen für die vermarktung oesterreichischer produkte", *Der Markt – International Journal of Marketing*, Vol. 36 No. 140, pp. 48-92.
- Shimko, K.L. (1991), *Images and Arms Control*, University of Michigan Press, Ann Arbor, MI.
- Sijtsma, K. (2009), "On the use, the misuse, and the very limited usefulness of Cronbach's alpha", *Psychometrika*, Vol. 74 No. 1, pp. 107-120.
- Silverstein, B. and Holt, R.R. (1989), "Research on enemy images: present status and future prospects", *Journal of Social Issues*, Vol. 45 No. 2, pp. 159-175.
- Smith, A.D. (1987), *The Ethnic Origins of Nations*, Blackwell, Oxford.
- Snow, N.E. and Taylor, P.M. (2009), *The Routledge Handbook of Public Diplomacy*, Routledge, New York, NY.
- Sriramesh, K. and Vercic, D. (2009), "A theoretical framework for global public relations", in Sriramesh, K. and Vercic, D. (Eds), *The Global Public Relations Handbook: Theory, Research, and Practice*, Routledge, New York, NY, pp. 3-21.
- Sun, H.H. (2008), "International political marketing: a case study of United States soft power and public diplomacy", *Journal of Public Affairs*, Vol. 8 No. 3, pp. 165-183.
- Tapachi, N. and Waryszak, R. (2000), "An examination of the role of beneficial image in tourist destination selection", *Journal of Travel Research*, Vol. 39 No. 1, pp. 37-44.
- Vickers, R. (2004), "The new public diplomacy: Britain and Canada compared", *The British Journal of Politics & International Relations*, Vol. 6 No. 2, pp. 182-194.
- Vos, M. (2006), "Setting the research agenda for governmental communication", *Journal of Communication Management*, Vol. 10 No. 3, pp. 250-258.
- Wang, C.-K. and Lamb, C.W. (1983), "The impact of selected environmental forces upon consumers' willingness to buy foreign products", *Journal of the Academy of Marketing Science*, Vol. 11 Nos 1/2, pp. 71-84.
- Wang, J. (2005), "Consumer nationalism and corporate reputation management in the global era", *Corporate Communications: An International Journal*, Vol. 10 No. 3, pp. 223-239.
- Wang, J. (2006), "Managing national reputation and international relations in the global era: public diplomacy revisited", *Public Relations Review*, Vol. 32 No. 3, pp. 91-96.
- Wang, J. (2008), "The power and limits of branding in national image communication in global society", *Journal of International Communication*, Vol. 14 No. 2, pp. 9-24.
- Wanta, W., Golan, G. and Lee, C. (2004), "Agenda setting and international news: media influence on public perceptions of foreign nations", *Journalism & Mass Communication Quarterly*, Vol. 81 No. 2, pp. 364-377.
- Werron, T. (2012), "What do nation-states compete for? A historical-sociological perspective on competition for 'soft' goods", *Zeitschrift fuer Soziologie*, Vol. 41 No. 5, pp. 338-355.
- White, R.K. (1965), "Images in the context of international conflict", in Kelman, H.C. (Ed.), *International Behaviour. A Social-Psychological Analysis*, Holt, Rinehart and Winston, New York, NY, pp. 236-276.
- Yang, S.-U., Shin, H., Lee, J.-H. and Wrigley, B. (2008), "Country reputation in multidimensions: predictors, effects, and communication channels", *Journal of Public Relations Research*, Vol. 20 No. 4, pp. 421-440.
- Zhang, J. and Cameron, G.T. (2003), "China's agenda building and image polishing in the US: assessing an international public relations campaign", *Public Relations Review*, Vol. 29 No. 1, pp. 13-28.